



Using Bivariate Data to Make a Scatter Plot of Height vs. Foot Length

How to Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool [Random Sampler](#) to download a sample.X

Reference year: (select year) **Sample size:** At least 30 students

Select questions: Height, Foot Length

Location: Select location

Year level: (select a range of year levels)

To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% entered.

Task:

Following from CasQ 24A you will use a scatter plot to see if it is true that a person's height is 7 times their foot length.

Setting up a scatter plot

1. Select 30 students from the random sample and copy each person's height and foot length into a table.
2. Decide which is the dependent and the independent variable and set up a pair of labelled axes.
3. Look at the ranges of each data set and set up an appropriate scale on each axis.
4. Carefully show the height and foot length of each person on the plot.
5. Look at the overall pattern or trend of the data. Place your ruler so that it has the same slope as the pattern or trend. Next draw a line following this trend but with about half of the data points above and half below the line.
6. Select a point on the line and use the x and y value to find the relationship between the height and the foot length i.e. $\text{height} \div \text{foot length} =$
7. Use two other points on your line to confirm your result.
8. Write a sentence describing what you have found about the number of times longer a person's height is than their foot length.



ABS Education Services

Name: _____

CaSQ 24B

Date: _____

Note: CaSQ_24A precedes this lesson and CaSQ_24C is an extension